**Project Introduction:**

We are Using Python and Django for DBS Chatting App. We used DRF and JavaScript to make it more perfect and scalable.

To implement security of users we are using different algorithms to store password and with 2 factor authentication for users. We have commented the code as well to make sure anybody else can understand easily.

**Security Work:**

1. **PBKDF2 Algorithm OR SHA256 hash:**
   1. For Users Authentication we are using **PBKDF2 algorithm with a SHA256 hash**, a password stretching mechanism recommended by NIST. This should be sufficient for most users: it's quite secure, requiring massive amounts of computing time to break.
2. **Authentication:**
   1. we are using Django built int users’ authentication and authorization functionalities. It is based on **Django Session Framework.** Which helps to make authorization easy and making login secure instead of doing it manually.
3. **Authorization:**
   1. We are using Django Users Management to authorize Admin and other staff users as well. By this no body gets extra or less rights to do in web app, like:
      1. Users Management
      2. Messages App Management
4. **Two Factor Authentication:**
   1. To make sure about user authentication we have added extra layer of security as 2 factor authentication by email. Whenever user signup or register for the first time he has to add the email verification code that is sent by our Django App.
   2. Otherwise, user can see the message and form to verify first and then can chat to other users.